

REMARKS

Claims 1-64 are pending in the application, of which Claims 1, 8, 15, 22, 33, 42, 53, and 62-64 are independent claims. Claims 1-37, 39-57, and 59-64 have been rejected. The Applicants note that Claims 38 and 58 have not been rejected, and as such are considered to be allowable. The rejections are traversed.

The Applicants disclose and claim a wireless communication system having mobility-based content delivery. As claimed, a portable wireless transceiver has an associated mobility state. For example, the transceiver can be stationary, traveling a slow speed (walking), or traveling at a high speed (driving).

Prior art systems attempt to maintain the same level of service regardless of mobility. As the transceiver travels at higher speeds, the base station must allocate more resources to that transceiver to maintain a specified level of service. Typically, that process reduces the subscriber capacity of the base station.

In contrast to the prior art, the Applicants claim a system that specifies a tiered level of service, based on a mobility state. A subscriber willing to pay a premium can have the same quality of service at all mobility states, but for others the level of service is adapted based on the mobility state. This is accomplished by restricting the transmission of certain content over the wireless link. For example, a subscriber in a high-speed state may not be sent high bandwidth content, such as streaming video. Instead, the system would inhibit or block that content from being transmitted over the wireless link. The cited references do not teach or suggest the claimed invention.

Regarding Finality of Office Action

Despite the addition of new references against original claims, the Office Action was made final. As specified in MPEP §706.07(a), a final office action is improper when it introduces a new ground of rejection that was neither necessitated by the Applicant nor cited by the Application in an Information Disclosure Statement with a fee. Although the Office Action concludes with the conclusory statement that the Applicant necessitated the new grounds for rejection, the facts are contrary to that conclusion.

The Office Action now cites Coley (U. S. Patent No. 5,826,014) against Claims 25, 33-37, 39-41, 45, 53-57, and 59-61. None of those claims were amended or added by the Applicant. Instead, they appear as originally filed. The Office concluded that the prior rejections could not stand and merely added Coley. Coley could have been cited in the first Office Action.

The Applicant did nothing to necessitate the citation of Coley. The Applicant therefore respectfully requests that finality of the Office Action be removed under MPEP § 706.07(d).

Regarding Rejections under 35 U.S.C. § 102

Claims 1-4, 7-11, 14-18, 21, and 62 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,091,956 to Hollenberg. Claims 22-23, 28-30, 42-43, 48-50, and 63-67 have been rejected under § 102(e) as being anticipated by U.S. 6,169,858 to Hsu et al. In addition, Claims 1, 5-6, 8, 12-13, 15, and 19-20 have been rejected under § 102(b) as being anticipated by U.S. Patent No. 6,032,044 to Shannon et al. The rejections are traversed.

Independent Claims 1, 8, 15, 22, 42, and 62-64 stand rejected under Section 102 based on at least one of Hollenberg, Hsu, and Shannon. Neither reference anticipates the claimed invention.

To establish a prima facie showing of anticipation, the Office Action must present evidence that all claim limitations are disclosed in the single cited reference. When undertaking that showing, claim limitations must be given the broadest reasonable interpretation consistent with the specification. See MPEP § 2111. The examination standard, used in the Office Action, of giving claim limitations “the broadest interpretation possible” regardless of definitions in the specification (Office Action at p. 2) is the wrong standard. The Applicants respectfully request that a new Office Action be issued that applies the proper examination standard.

Hollenberg discusses a situation information system. In particular, the system identifies the location of a portable computer and its direction and rate of travel. That identification is derived from GPS data. Once the location and course are known, the computer receives information data relevant to that information, such as traffic information and area attractions.

While subscribers can move, the Hollenberg system does not associate that movement with a mobility state, as claimed. Hollenberg merely detects location-related information.

Hollenberg also does not teach or suggest “limiting the transmission of content” over a communication link based on a mobility state, as recited in original base claims 1, 8 and 15, and added Claim 62. Hollenberg only selects content based on location, that content is transmitted without regard to mobility state. In other words, Hollenberg does not “limit the transmission” of the content, as claimed. Hollenberg’s selection of content is patentably distinct from the Applicants’ limiting of transmission.

The dependent claims add additional patentable limitations. For example, Hollenberg fails to teach or suggest the use of at least three mobility states as recited in Claims 3-4, 10-11, and 17-18. The Applicants further note that independent Claim 62 is written in mean-plus-function format, and therefore must be interpreted as specified by 35 U.S.C. § 112, ¶ 6.

Hsu discusses a system for monitoring a selected quality of service level in a radio communication system. A subscriber’s quality of service is maintained even while the subscriber unit is in motion. This requires that resources be reserved for the moving subscriber both in the current cell and in cells along the predicted movement path. Instead of limiting the transmission of content, Hsu allocates additional resources to deliver the content.

Hsu does not teach or suggest affecting the rate of data transmittal over the wireless communication link, based on the level of service and mobility state, as recited in original base claims 22 and 42, and added Claims 63 and 64. In fact, Hsu does not disclose or suggest the use of a mobility state. Instead Hsu’s system is mobility independent. At any rate of movement, the system maintains a specified Quality of Service (QoS). The system then reserves resources at base stations to maintain the specified QoS level. As such, the user’s rate of movement does not impact the transmission rate of data, as claimed. Instead the transmission rate is maintained by using more wireless resources. Such prior art systems and their problems are described at page 2, lines 17-25 of the Applicants’ specification.

The dependent claims add additional patentable limitations. For example, Hsu does not employ mobility states as recited in Claims 28-30, and 48-50. Furthermore, independent claims 63-64 are written in means-plus-function format, and Hsu does not teach or suggest the claimed subject matter.

As for Shannon, a cellular communications system is discussed that comprises a plurality of zones. The services available to subscribers in each zone can be different. As a subscriber

moves from zone to zone, the subscriber's services can change. This change in services is unrelated to mobility state — it is based on location within a zone. That is, the subscriber's service level is the same within any zone, regardless of whether the subscriber is stationary, walking or driving.

Shannon does not teach or suggest “limiting the transmission of content” over a communication link based on a “mobility state” as recited in original base claims 1, 8 and 15. Although movement is mobility, Shannon fails to teach or suggest mobility states. Contrary to the Office's remarks, the term “mobility states” cannot be interpreted without regard to the Applicants definition in the specification, what is consistent with how the term would be understood by one of ordinary skill in the art.

Reconsideration of the rejections and 35 U.S.C. § 102 is respectfully requested.

Regarding Rejections under 35 U.S.C. § 103

Claims 24, 26-27, 44, and 46-47 have been rejected under 35 U.S.C. § 103(a) based on Hsu in combination with U.S. Patent No. 6,374,112 to Widegren et al. Claims 31-32 and 51-52 have been rejected under § 103(a) based on Hsu in combination with Shannon. Claims 33-37, 39-41, 53-57, and 59-61 have been rejected under § 103(a) based on Shannon in combination with U.S. Patent No. 5,255,307 to Mizikovsky. Claims 25 and 45 have been rejected under §103(a) based on Hsu in view of Widegren further in view of U.S. Patent No. 5,826,014 to Coley et al. Finally, Claims 33-37, 39-41, 53-57, and 59-61 have been rejected under §103(a) based on Shannon in view of Mizikowsky further in view of Coley. The rejections are traversed.

The zone-base service structure of Shannon was discussed above. Shannon fails to suggest the use of a mobility state and furthermore fails to suggest the claimed mobility processing routine and content filter, as recited in independent Claims 33 and 53.

Mizikovsky is similar to Shannon, by discussing a home system and a visited system. The cellular unit includes a HOME/ROAM indicator for indicating to the subscriber when the unit is active on the home system and when it is roaming on the visited system. While roaming, the subscriber may have a different level of service. Like Shannon, Mizikovsky fails to suggest the use of a mobility state, or mobility processing routine, and a content filter responsive to the mobility state as claimed.

Widegren fails to cure to the deficiencies of the discussed references.

Coley is cited as associating a type of content with a service port number. Coley, however, is unrelated to wireless communication systems. As acknowledged in the first Office Action, wireless communication systems do not use service port numbers. The combination of service port numbers with a wireless system is unobvious and neither Coley nor the other references offer a motivation to combine.

Reconsideration of the rejections under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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